

REMARKS

Reexamination and reconsideration is hereby requested. The independent claim 54 has now been further amended so as to more clearly set forth the present invention and to distinguish over the cited prior art.

In embodiments of the present invention, a first type of plastic is molded over a metal frame which includes elements which alternatively serve as exterior contacts. The first molded material encapsulates portions of the frame thereby forming a flame proof seal. The first type of plastic is over molded with a second, outer, plastic which encloses the first portion and non-contact portions of the frame. The second plastic material can be different from the first material. The second, outer, plastic material forms a partially enclosed molded plastic sensing region.

Howarth, unlike the claimed invention, does not disclose over-molded plastic structures which form a molded plastic sensing region as claimed. Rather, Howarth discloses an insulating member 34 through which extends contacts 39, which is removably attached to body portion 32 by threaded ring 33. Hence, unlike pending claims, the electrode mount 34 is only removably attached to the housing 31.

The structure of Doncaster does not address the deficiencies of Howarth noted above. The insulating material 9 of Doncaster is a glass microfiber insulating material which encapsulates the gas sensing catalytic beads thereof. Unlike the claimed invention, Doncaster merely discloses, see Fig. 2 thereof, a can 2 which includes catalytic bead one which is surrounded by the glass microfiber insulating material 9. This is quite unlike the claimed invention. Further, unlike the claimed invention Doncaster's exterior housing 11 is formed of

stainless steel. Hence, the microfiber insulating material 9 of Doncaster is not structural material which forms part of the housing. Instead, the material 9 is contained with the can 2 which is further contained within the stainless steel housing 11.

Tantrum also fails to address the deficiencies of Howarth noted above. In Tantrum a sensing region 3 is formed by a single type of material 1. Tantrum discloses that the material of the walls of the chamber “maybe metal or ceramic” (Col. 3, ll. 11, 12). Thus, Tantrum also teaches away from the claimed invention. Otani et al., U.S. Patent 7, 479, 255 is also unlike the claimed invention and does not address the deficiencies of Howarth. In Otani et al., relative to Fig. 2 thereof, a single material case 2 surrounds other separate components which are installed therein including a spacer 7. In Fig. 9 thereof, metal walls 43, 45 which are separate components, define the sensing region, see Col. 12, ll. 43, 44 thereof.

German Patent Document WO 00/00820 discloses a molded housing 6 formed of a single type of plastic material. This structure is quite unlike the claimed invention.

Thus, for at least the above reasons, the pending claims are allowable and allowance of the application is respectfully requested.

Respectfully submitted,

Dated: January 27, 2011

By: 

Paul M. Vargo
Reg. No. 29,116
HUSCH BLACKWELL LLP
120 South Riverside Plaza
Suite 2200
Chicago, IL 60606
(312) 655-1500 (Phone)